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Imagery Analysis Monthly Review

December 1980

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December 1980
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Imagery Analysis Monthly Review

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This publication of the Office of Imagery Analysis contains substantive findings and analytical judgments that were derived principally from analysis of imagery. (U)

Comments and queries on the contents of this publication are welcomed. They should be directed to the analyst whose name and secure line extension appear after each article. (U)

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Soviets Experimenting With Mobile Communications Equipment at SS-18 Facilities (S)

The Soviets are apparently conducting exercises using mobile command, control and communications (C3) equipment with the SS-18 ICBM. Two mobile C3 exercises were observed near one of the SS-18 launch control facilities (LCFs) at the Tyuratam Missle/Space Test Center, one in November and one in December 1980. The exercises involved vehicles like those associated with the SS-20 mobile IRBM. This is the first time that this type of mobile C3 equipment has been seen at Tyuratam. The vehicles, which were all canvas covered, included two probable van trucks, one possible van truck, a possible missile support van, and one unidentified vehicle with an erected antenna.

The SS-18 LCF was apparently involved in both of the exercises. One of the LCF's retractable antennas was erected and a larger-than-normal complement of van trucks and trailers was present on the site when the LCF was observed on the retractable antenna had been stowed and the mobile C3 equipment had been moved to a nearby location indicating that the first exercise was no longer in progress.

Although the purpose of these exercises is unclear, the mobile C3 equipment may have been used in the launch of an SS-18 ICBM which took place at Tyuratam on –eight days after the mobile C3 equipment was first observed near the LCF.

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Other sources indicate that a similar exercise involving a mobile C3 unit occurred at the Aleysk SS-18 ICBM complex in May 1980. Although the types of mobile C3 vehicles used in this exercise are unknown, control of the Aleysk ICBM Division was passed to a mobile C3 unit and then returned to a permanent command post. This part of the exercise most likely included the simulated repair of a damaged command post. It was during this same exercise that the Soviets simulated the reloading and refiring of SS-18s from some silos after the initial salvo.

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Soviets Preparing for Initial Deployment of AS-9 Missiles with Backfire Bombers (S)

The Soviets are making preparations for the initial deployment of a short-range air-to-surface missile system—probably the AS-9—with Backfire bombers. A handling and storage facility for tactical air-launched missiles (TALMs) is under construction adjacent to the Backfire bomber dispersal area at Poltava Airfield. The AS-9 is the only tactical air-to-surface missile known to be associated with the Backfire.

In July 1978 the Soviets began construction of three twin-bay, drive-through TALM handling and storage bunkers and a vehicle parking or missile-fueling apron at Poltava Airfield—a Long Range Aviation (LRA) facility. Construction could be completed during 1981. Bunkers of this type are often found at Soviet tactical airfields and are used to support tactical air-to-surface missiles—including the AS-9. There is no evidence of similar construction activity at the other two LRA bases or at the three Soviet Naval Aviation (SNA) bases where Backfire are operationally deployed.

The AS-9, an antiradiation homing missile, has a maximum range of 100 kilometers and is normally carried by Fencer A and Fitter C/D aircraft. It underwent integration testing with a Backfire-B aircraft from July 1975 through September 1978 at Akhtubinsk and Ramenskoye Flight Test Centers. To date, no AS-9 equipment has been identified at any of the six operational Backfire bases. We have not determined the number of AS-9 missiles that could be carried by each Backfire. The Backfire is capable of carrying conventional or nuclear bombs, mines, or the AS-4 ASM which has a demonstrated range of 390 to 460 kilometers.

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Soviets Increasing the Number of BMPs in Motorized Rifle Units (S)

The Soviets have been increasing the number of BMP armored personnel carriers in motorized rifle units by approximately one-third since late 1979. The number of BMPs in a motorized rifle regiment (MRR) is being increased from just under 100 to over 130. This change is attributable to an increase in the number of BMPs at the company level—and probably at the platoon level.

This increase was first identified in September 1979 in the MRR of the Soviet experimental tank division at Belogorsk when one motorized rifle battalion with 42 BMPs (with space for 43) was observed. A second sighting occurred in April 1980 in the MRR of the Dauriya Motorized Rifle Division in the Transbaykal Military District (MD). At least five more Soviet BMP-equipped units have incorporated this change. Three of these are MRRs subordinate to motorized rifle divisions which are located in Mongolia and in the The remaining two units are motorized rifle battalions subordinate to tank regiments. One of these battalions was observed training at Juterbog Training Area on and the other is stationed at Grodno in the Belorussian MD.

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This increase in BMP holdings apparently stems from a decision by the Soviets to increase the number of BMPs in the standard platoon, and to add one more BMP at the company level. A typical Soviet BMP-equipped company will now have 14 BMPs rather than 10, and a typical BMP-equipped battalion will have 43 BMPs rather than 31. Although photographic evidence of this change at the platoon level is still inconclusive, a platoon of four BMPs already exists in the reconnaissance company of tank and motorized rifle regiments. In addition, during the early to mid-1970s the platoons of tank battalions subordinate to MRRs were expanded from three to four tanks each.

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Soviets Scrapping Riga-Class Frigate (S)

The first Riga-class frigate (FF) to be scrapped by the Soviets is undergoing dismantlement at Liepaja Naval Base and Shipyard. The initial dismantlement of the frigate began in late October 1980 at Liepaja Naval Base and Winter Harbor, where the ship's primary weapons system—three single-mounted 100-mm/56 dual-purpose guns—were removed. The frigate was moved in November to Liepaja Naval Base and Shipyard for further dismantlement. Eventually the ship will be moved to the breakers yard at Riga Naval Base and Shipyard Bolderaja for final scrapping.

The Soviets built a total of 64 Riga-class FFs between 1952 and 1958. Sixteen of these vessels were transferred to foreign countries. Of the 48 Riga-class FFs remaining in the Soviet inventory, 15 are in conserved or preserved status, 11 are out of service at several naval bases and ship repair yards, and 22 are still in active service throughout the four fleet areas.

The Soviet designation for the Riga-class FF is *Strozhevoy Korbal* (SKR) or patrol ship. Additional classes of ships with this designation are the Krivak guided-missile frigates (FFGs), the Petya and modified-Petya light frigates (FFLs), and the Mirka FFLs. Only the Krivak FFGs are rated first-class by the Soviets—the highest combat effectiveness ranking in the SKR designation. The remaining classes of ships are rated second- and third-class, including the Riga FFs, which bear a third-class rating—the lowest combat effectiveness ranking. In view of the dismantlement of one Riga-class frigate and the low Soviet rating of these ships, it appears that the Soviets may scrap the entire class in the near future.

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Soviets Deploy Rapid Fire Mortars at Battalion Level Along Sino-Soviet Border (S)

The Soviets are increasing the firepower of their motorized rifle battalions along the Sino-Soviet border by redeploying the rapid fire Vasilek mortar to battalion level. Previously, four Vasilek mortars had been deployed with the artillery of the motorized rifle regiments. Since May 1980, however, as many as three Vasilek mortars have been observed parked with the six 120-mm mortars assigned to motorized rifle battalions.

This same combination—three Vasilek mortars and six 120-mm mortars—has been observed since late 1979 with the motorized rifle battalions of the Soviet experimental tank division at Belogorsk in the Far East Military District. It has also been observed with Soviet forces in Afghanistan during 1980. This may only be an interim organization, however. We believe that the Vasilek will eventually replace the 120-mm mortars on a one-for-one basis. Such a replacement has already occurred in border guard and fortified defense units along the Chinese border.

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The Vasilek mortar is reported to be 82 mm in caliber and to have an extremely high rate of fire—up to 120 rounds per minute. Compared to the 120-mm mortar's rate of fire of 12 to 15 rounds per minute, the Vasilek is superior in firepower, although it fires a smaller round. The reported maximum range of the Vasilek is approximately 4,000 meters—less than the 120-mm mortar's range of 5,700 meters. The Vasilek may be employed in a direct-fire mode which, coupled with its high rate of fire, gives this system a greater capability against armored vehicles than the 120-mm mortar.

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New Soviet Oil Discovery in Kazakhstan (U)

A new Soviet oil discovery has been identified near Lake Tengiz in central Kazakh S.S.R. on satellite photography of August 1980. Three oil or gas drilling rigs were seen in an area located approximately 90 kilometers east-northeast of the town of Arkalyk. A major oil discovery in this general region was reported earlier by US oil industry sources. Previous photographic coverage of the area dated April 1979 showed no activity of any kind. There are no other fields in this part of Kazakhstan. (S

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The Soviets reportedly intend to drill 200 development wells in this area. When put into production, probably several years in the future, this field will supply oil to areas of Soviet South Central Asia that are currently receiving oil via pipeline from Western Siberia. Soviet officials have said that one well in the new field has a potential production capacity of 3,300 to 3,700 barrels per day—comparable to some of the better producing wells in Western Siberia.

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The oil from this new discovery is reported to contain high concentrations of hydrogen sulfide and carbon dioxide—two dangerous and extremely corrosive contaminants. One source indicated that the Soviets may erect a plant at the field to remove the contaminants before transporting the oil. Photography shows evidence that the drilling locations may have equipment for remote operation of the rigs to protect the workers from hydrogen sulfide exposure. According to industry sources, the Soviets are also attempting to purchase special high-quality drilling and production equipment from various Western companies for the new field.

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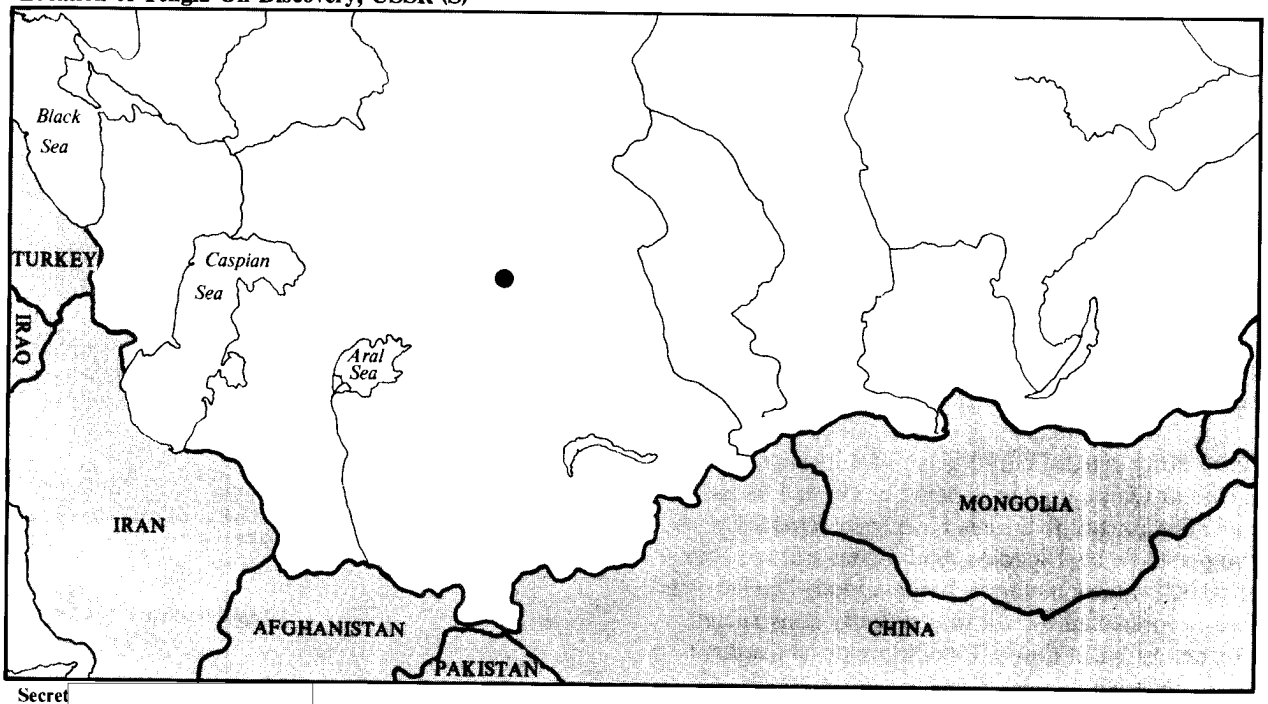
Location of Tengiz Oil Discovery, USSR (S)



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Chinese Expanding Their Coal Export Facilities (S)

The Chinese have begun a port development program designed to greatly increase their coal exporting capability. Although coal is handled at several ports in China, it is presently exported only from Qinhuangdao, Lianyungang, and possibly Qingdao. Recent satellite photography of Qinhuangdao shows construction of a new, large coal terminal and expansion of existing transshipment facilities for coal export. The new coal terminal at Qinhuangdao is designed to eventually handle 30 million tons of coal per year. China also plans to build major coal export facilities at Lianyungang, Qingdao, and Shijiusuo with annual capacities ranging from 10 to 30 million tons each. Presently only about five million tons of coal are exported annually from China.

Qinhuangdao is already China's largest coal handling center with an annual throughput capacity of 10 million tons—principally for domestic consumption. By September 1980, the first phase of development of the new coal transshipment terminal was in the midstage of construction. The terminal is 4 kilometers northeast of the main port complex and will include two berths located along a 548-meter-long quay that appears to be essentially complete. Each berth will have four coal loaders that will feed the coal from an open storage yard covering at least 425,000 square meters. When the facilities presently under construction at Qinhuangdao are completed in 1982, the terminal is expected to handle 10 million tons of coal per year. The second phase of development, which appears to be in the initial stage of construction, is scheduled for completion in 1986. This will increase the terminal's capacity to 30 million tons.

An existing general cargo berth and its support facilities at Qinhuangdao is being converted to handle coal. The portal jib cranes have been replaced with five quayside coal loaders, and a coal storage area of 50,000 square meters is being added. The storage area is connected by rail to a recently constructed 13-track railyard that will facilitate the movement of coal through the port complex.

The reason behind this ambitious expansion program is China's desire to promote exports of coal—instead of oil—to Japan in the 1980s. China has offered to ship 10 million tons of coal to Japan in 1985—to offset its deficit in export trade for Japanese industrial plants.

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Locations of Chinese Coal Export Facilities (S)

▲ Planned Expansion of Existing Facilities
△ Planned New Facilities

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Chinese Arms Shipments to Pakistan (S)

Pakistan continues to be China's chief customer for ground force equipment. On two occasions since March 1980, a Pakistani merchant ship has been observed loading tanks and artillery at the Chinese port of Diaoshuntsun. There is evidence that a third Pakistani arms shipment also occurred during this period. Diaoshuntsun is China's only known port for exporting ground force equipment and the principal port for the export of aircraft. The three shipments of ground force equipment to Pakistan have been the only ones observed at Diaoshuntsun since March.

The three arms shipments were carried aboard one of two Pakistani merchant ships—the Ravi or the Jhelum. One of these two ships was seen berthed at Diaoshuntsun on In March and November, a floating crane was being used to load tanks and armored recovery vehicles from a barge onto the ship. These two arms shipments apparently included other tanks and artillery seen on the quay near the ship. The Pakistani ship seen on at Diaoshuntsun may have also been loaded with tanks. Two tanks seen on the quay on were absent on suggesting that they had been loaded aboard the recently berthed Pakistani ship.

The three Chinese arms shipments to Pakistan observed on imagery at Diaoshuntsun included the following amounts and types of equipment:

--27 Tanks (at least two were Type 62 light tanks and 12 were Type 59 medium tanks)
-- 9 Armored recovery vehicles
--12 Unindentified armored vehicles
--35 Field artillery (18 were Type 54 122-mm howitzers)
-- 8 Antiaircraft artillery

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These recent shipments of ground force equipment to Pakistan are part of a longstanding Chinese military assistance arrangement with Pakistan dating from the 1950s. To date, Pakistan is the single largest recipient of Chinese military aid. China has provided more tanks to Pakistan than to any other country—over 1,300 medium tanks as of late 1977. Although Chinese light tanks have been exported to at least eight other countries, the identification of Type 62 light tanks in the November 1980 shipment is the first confirmed export of light tanks to Pakistan.

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New OIA Publications

The following reports have been published by the Office of Imagery Analysis since the last issue of the *Imagery Analysis Monthly Review.*

Imagery Research Papers

1. IS 80-10162J, *SS-18 Mod 4 (MIRV) ICBM Payload-Related Components and Equipment,* November 1980 (Top Secret 25X1
2. IS 80-10165, *Nizhniy Tagil Metallurgical Combine Lenin, USSR,* November 1980 (Secret 25X1
3. IS 80-10169K, *Yugoslavia's Petroleum Refining Industry,* November 1980 (Top Secret 25X1

Imagery Analysis Reports

1. IS 80-10209J, *Disposition of Iraqi and Iranian Forces in the Battle Area—October 1980* (Top Secret 25X1

Intelligence Assessments

1. IS 80-10199JX, ER 80-10603JX, *Iraq Petroleum Facilities: Damage and Repair Assessment,* (Top Secret 25X1
2. IS 80-10208X, ER 80-10629X, *Iran Oil Facilities: Damage Assessment,* (Secret NOFORN 25X1

Imagery Analysis Memorandums

1. IS 80-10196K, *Delta - Series SSBN Production Likely to Continue at Severodvinsk Shipyard 402* (Top Secret 25X1
3. IA 80-10188K, *Analysis of the Soviet SA-11 SAM System* (Top Secret 25X1
4. IS 80-10186K, *Analysis of the Soviet RAM-L Experimental Fighter Aircraft* (Top Secret 25X1
5. IS 80-10200K, *Indications of a New Missile Program at Kapustin Yar Missile Test Center, USSR* (Top Secret 25X1
6. IS 80-10171K, *Analysis of Selected Transformers at the Zaozernyy Uranium Isotope Separation Plant, USSR* (Top Secret 25X1
7. IS 80-10187K, *Status of Chinese Luda Destroyer Program, June 1980* (Top Secret 25X1
8. IS 80-10195, *Ground Force Activity in Angola's Military Region 2* (Secret 25X1
9. IS 80-10206J, *Movement of Ethiopia's 11th Division Headquarters Toward the Ethiopian/Somali Border* (Top Secret 25X1
10. IS 80-10205K, *Israeli Crude Oil Holdings for October 1980* (Top Secret 25X1

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